

Sturgeon PWT Meeting
April 8, 2009
3500 Industrial Blvd., Room 119
West Sacramento, CA 95691
10:00 a.m. – 3:00 p.m.

AGENDA

1) Introductions (10:00-10:45) – Provide simple project update or explain your involvement with the PWT. *Attendees list at end of notes.*

2) Updates (10:45-11:00)

a) Discuss use of oxytetracycline (aka LA-200) on green sturgeon (GS) - Robert Chase

The purpose of use is to fight off infection and if recaptured enables age verification to be done. When a fish is injected, it should be held for 3 weeks so it is not consumed. However, these fish are supposed to be released so is it an issue? Does the risk outweigh the benefits? Primary issue here is for fighting off infection which is likely important. Yet, there are rarely bacterial problems in white sturgeon (WS) aquaculture while sometimes there are viral infections. Nevertheless, it seems likely fish are being consumed. Various protocols are currently being used. Fish raised in the aquaculture facilities are held using the rules developed by the UC animal protocol committee. Holding sturgeon after injection in the field has not been stipulated as a limitation to BOR and UCD SCPs. It appears the decision of LA-200 use is likely an FDA issue.

What can we do?

Fisher education would be useful for addressing the issue to the potentially affected populations. Spaghetti tags do say "catch and release" fish, so if LA-200 is used on these fish, people should not be harvesting them illegally.

b) VPS system deployment in Lake Redbluff - Robert Chase

VPS will be deployed on day 1 Lake RB goes in. Hopefully, this system will yield information about what part of RBDD fish passed under. Objective will be to get fish tagged above the dam; there are plans to deal with this if gates are closed and no fish upstream are tagged. One issue is the software is not available publicly, so data needs to be processed by Vemco.

c) Fishing regulations – David Woodbury

Steve B. and Dave have been working on revising fishing regulations. Its clear there is fishing for sturgeon in the upper Sacramento River. Discussions will look at multiple options for regulations to be included in the triennial regulation review that will be put out there publicly and considered eventually by the Fish & Game Commission (FGC). Unclear when the regulations will actually make it to FGC. Alternatively, this could go the way of an emergency regulation which would require 90 days public review.

Additional information from R. Bellmer (post-meeting):

The last triennial review was conducted in 2006. Several concerns came up at this end. Mr. Scott Barrows (a most excellent person), an expert on fishing regulations, has offered to come to the next meeting and give a short overview, answer questions, and lead a discussion for 20-30 minutes if there is an interest.

3) USACE presentation (11:00-11:20) – Jan Hoover & Krista Boysen (Mississippi)

Pallid sturgeon have been listed for 20 years. There are things we can learn from their studies that can accelerate our restoration and recovery. They have Jeopardy determinations in three BO's. Towboat entrainment BO may have some information about propeller and barge impacts. ACOE actions for ESA compliance: (~\$50/mill annually) - manipulated hydrographs, shallow habitat creation, propagation and stocking, and population studies. Employed colonic flushings rather than lavage for diet studies.

Used mean CPUE for trotlines to assess relative abundance. 5th most abundant species (out of 21) on trotlines.

Preferred habitat is sandbar with precipitous drops: other types of habitats found in - 2nd channel, riprap, channel border, dike, flooded bar, gravel bar (spawning), etc.

Larvae most frequently found at downstream end of gravel bars.

Size structure differs in different parts of the river. They may be spawning between 4/5 to 10 years old. Different mortality rates were found in lower and middle sections of the Mississippi River. This is likely because regulations in the lower Mississippi River for gravid shovelnose is likely causing poaching and/or accidental by-catch of pallid.

Population viability analysis (PVA) allows you to evaluate extinction probabilities with various levels of stocking, fishing, and habitats. This is an ecosystem based approach since it evaluates the mechanics behind the population in light of management strategies happening at various ecological and policy scales. Applied Biomathematics is contracted consulting firm used for PVA (RAMAS). Assumption is you do not have data, so you can start with best guesses, but empirical data is much better. The current proposals of P. Klimley's could yield some of these data quite easily.

ACOE has used age and stage approaches to PVA, but it is likely that age is the best approach for dealing with reproductive research about periodicity of adult reproduction, spawning. This is more difficult but provides more realism.

4) Modifications to Study Plans to be funded by USACE (11:20-12:00) - *Input and possible collaboration with people in the PWT to develop (or refine) the best workable plan*

a) Klimley/Gingras

Purpose is to tag 80 GS and 80 WS annually with acoustic transmitters, hopefully starting this fall in August and September with DFG. Spring 2010, commercial fisherman will work March and April to tag additional 80GS/80WS. Population estimates currently based on ratio of WS:GS. This study will permit us to get a better sense for residency, and the monitor array can provide additional information about reproduction and periodicity of fishes. All fish will be tagged, no size constraint on tagging. They also plan to use endoscopy and sonographs.

b) Lester/Lindley/Mora

Conduct a rapid assessment of sturgeon presence and absence (p/a) in 100 habitats in the upper Sacramento River. While the Rogue River has about a 30% occupancy rate, at this point Mora said they are estimating the Sacramento River to have a 50% occupancy rate. The DIDSONs will be run through 3 passes for p/a. The following week, the DIDSONs will be run through on 6-7 transects. GIS information will allow for approximating location of fish within one meter. Mid-May to June will be targeted for field research. July 2009 will be a pilot study; abundance estimates will begin in 2010. Bounded count method assumes you can see all fishes, so using a strip method approach will help resolve this assumption. The three year study will help identify interannual variation in presence/absence.

5) Lunch (12:00-1:00) – *local restaurant list will be provided or bring own food and utilize the breakroom*

6) Prioritize research needs (1:00-3:00)

Seven people gave their rankings for green sturgeon. Items to include as possible research needs are spawning frequency, effects of climate change. IEP is able only to fund delta-focused studies, although it was agreed that as biologists we should look at the “big picture” while conducting initial rankings and then discern possibilities for IEP funding afterwards. David Woodbury suggested we increase priority of “invasive species” research; Mike Parsley indicated that invasive predators in the Columbia River were a threat to larval sturgeon. Might be helpful for Josh to give presentation at next meeting describing the DRERIP species conceptual models and describe how stressors and future research needs were identified. Mike Thomas suggested that one area that could greatly benefit from funding would be a UCD study that has been partially completed on the effects of pollutants.

Side notes: Green sturgeon symposium will be put on SF USACE this summer to identify research priorities. USACE also will be putting out RFP for compilation of green sturgeon tracking data across the West Coast (money should be arriving soon).

Attendees

Federal	State
BOR Don Reck Richard Corwin Robert Chase	CDFG Mark Adkison Russ Bellmer
NOAA/NMFS David Woodbury Doug Hampton Ethan Mora	CDWR Alicia Seesholtz Aric Lester David Grant Javier Miranda Qinqin Liu Zoltan Matica
USACE – CA Bill Brostoff Pete LaCivita	UC Davis Alex Hearn Andrea Drauch Joel Van Eenennaam Josh Israel Mike Thomas Pete Klimley
USACE – MS Jan Hoover Krista Boysen	
USFWS Zac Jackson Bill Poytress	
USGS – WA Mike Parsley	

The next PWT meeting will be held on July 8th (10am-3pm) at the CDWR building at 3500 Industrial Blvd, West Sacramento, CA 95691.